```
  3 <110> APPLICANT: Sette, Alessandro
  4       Sidney, John
  6 <120> TITLE OF INVENTION: HLA Binding Peptides and Their Uses
  9 <130> FILE REFERENCE: 2060.0010002
 11 <140> CURRENT APPLICATION NUMBER: US 08/452,843B
 12 <141> CURRENT FILING DATE: 1995-05-30
 14 <150> PRIOR APPLICATION NUMBER: US 08/344,824
 15 <151> PRIOR FILING DATE: 1994-11-23
 17 <150> PRIOR APPLICATION NUMBER: US 08/278,634
 18 <151> PRIOR FILING DATE: 1994-07-21
 20 <160> NUMBER OF SEQ ID NOS: 34
 22 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 24 <210> SEQ ID NO: 1
 25 <211> LENGTH: 9
 26 <212> TYPE: PRT
 27 <213> ORGANISM: Artificial Sequence
 29 <220> FEATURE:
 30 <223> OTHER INFORMATION: B35 consensus peptide
 32 <400> SEQUENCE: 1
 33 Phe Pro Phe Lys Tyr Ala Ala Ala Phe
 34   1               5
 36 <210> SEQ ID NO: 2
 37 <211> LENGTH: 9
 38 <212> TYPE: PRT
 39 <213> ORGANISM: Artificial Sequence
 41 <220> FEATURE:
 42 <223> OTHER INFORMATION: Y1 analog of 1054.05
 44 <400> SEQUENCE: 2
 45 Tyr Pro Lys Val Lys Gln Trp Pro Leu
 46   1               5
 48 <210> SEQ ID NO: 3
 49 <211> LENGTH: 11
 50 <212> TYPE: PRT
 51 <213> ORGANISM: Artificial Sequence
 53 <220> FEATURE:
 54 <223> OTHER INFORMATION: MAGE-1
 58 <400> SEQUENCE: 3
 59 Cys Ile Leu Glu Ser Cys Phe Arg Ala Val Ile
 60   1               5                   10
 62 <210> SEQ ID NO: 4
 63 <211> LENGTH: 9
 64 <212> TYPE: PRT
 65 <213> ORGANISM: Artificial Sequence
```

Input Set : A:\2060_0010002 seqlist.txt
Output Set: N:\CRF3\07192002\H452843B.raw

67 <220> FEATURE:
68 <223> OTHER INFORMATION: B53 self peptide
70 <400> SEQUENCE: 4
71 Tyr Pro Ala Glu Ile Thr Leu Tyr Trp
72 1   5
74 <210> SEQ ID NO: 5
75 <211> LENGTH: 9
76 <212> TYPE: PRT
77 <213> ORGANISM: Artificial Sequence
79 <220> FEATURE:
80 <223> OTHER INFORMATION: Cw3 consensus
82 <400> SEQUENCE: 5
83 Phe Ala Met Pro Asn Phe Gln Thr Leu
84 1   5
86 <210> SEQ ID NO: 6
87 <211> LENGTH: 9
88 <212> TYPE: PRT
89 <213> ORGANISM: Artificial Sequence
91 <220> FEATURE:
92 <223> OTHER INFORMATION: Cw3 consensus
94 <400> SEQUENCE: 6
95 Phe Ala Met Pro Asn Phe Tyr Thr Leu
96 1   5
98 <210> SEQ ID NO: 7
99 <211> LENGTH: 9
100 <212> TYPE: PRT
101 <213> ORGANISM: Artificial Sequence
103 <220> FEATURE:
104 <223> OTHER INFORMATION: Cw4 consensus
106 <400> SEQUENCE: 7
107 Gln Pro Asp Asp Ala Val Tyr Lys Leu
108 1   5
110 <210> SEQ ID NO: 8
111 <211> LENGTH: 9
112 <212> TYPE: PRT
113 <213> ORGANISM: Artificial Sequence
115 <220> FEATURE:
116 <223> OTHER INFORMATION: Cw6 consensus
118 <400> SEQUENCE: 8
119 Ile Pro Tyr Pro Ile Val Arg Lys Leu
120 1   5
122 <210> SEQ ID NO: 9
123 <211> LENGTH: 9
124 <212> TYPE: PRT
125 <213> ORGANISM: Artificial Sequence
127 <220> FEATURE:
128 <223> OTHER INFORMATION: Cw6 consensus
130 <400> SEQUENCE: 9
131 Ile Pro Tyr Pro Ile Val Arg Ser Leu

RAW SEQUENCE LISTING
PATENT APPLICATION: US/08/452,843B

DATE: 07/19/2002
TIME: 14:25:46

Input Set : A:\2060_0010002 seqlist.txt
Output Set: N:\CRF3\07192002\H452843B.raw

```
132  1                    5
134 <210> SEQ ID NO: 10
135 <211> LENGTH: 9
136 <212> TYPE: PRT
137 <213> ORGANISM: Artificial Sequence
139 <220> FEATURE:
140 <223> OTHER INFORMATION: Cw6 consensus
142 <400> SEQUENCE: 10
143 Ile Pro Phe Pro Ile Val Arg Tyr Leu
144  1                    5
146 <210> SEQ ID NO: 11
147 <211> LENGTH: 9
148 <212> TYPE: PRT
149 <213> ORGANISM: Artificial Sequence
151 <220> FEATURE:
152 <223> OTHER INFORMATION: Histone H3.3
154 <400> SEQUENCE: 11
155 Arg Tyr Arg Pro Gly Thr Val Ala Leu
156  1                    5
158 <210> SEQ ID NO: 12
159 <211> LENGTH: 9
160 <212> TYPE: PRT
161 <213> ORGANISM: Artificial Sequence
163 <220> FEATURE:
164 <223> OTHER INFORMATION: B7 Nat. Processed
166 <400> SEQUENCE: 12
167 Met Pro Arg Gly Val Val Val Thr Leu
168  1                    5
170 <210> SEQ ID NO: 13
171 <211> LENGTH: 10
172 <212> TYPE: PRT
173 <213> ORGANISM: Artificial Sequence
175 <220> FEATURE:
176 <223> OTHER INFORMATION: p53, 26-35
178 <400> SEQUENCE: 13
179 Leu Pro Glu Asn Asn Val Leu Ser Pro Leu
180  1                    5                   10
182 <210> SEQ ID NO: 14
183 <211> LENGTH: 10
184 <212> TYPE: PRT
185 <213> ORGANISM: Artificial Sequence
187 <220> FEATURE:
188 <223> OTHER INFORMATION: p53, 84-93
190 <400> SEQUENCE: 14
191 Ala Pro Ala Pro Ala Pro Ser Trp Pro Leu
192  1                    5                   10
194 <210> SEQ ID NO: 15
195 <211> LENGTH: 11
196 <212> TYPE: PRT
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/08/452,843B

DATE: 07/19/2002
TIME: 14:25:46

Input Set : A:\2060_0010002 seqlist.txt
Output Set: N:\CRF3\07192002\H452843B.raw

197 <213> ORGANISM: Artificial Sequence
199 <220> FEATURE:
200 <223> OTHER INFORMATION: p53, 127-137
202 <400> SEQUENCE: 15
203 Ser Pro Ala Leu Asn Lys Met Phe Cys Gln Leu
204 1   5   10
206 <210> SEQ ID NO: 16
207 <211> LENGTH: 9
208 <212> TYPE: PRT
209 <213> ORGANISM: Artificial Sequence
211 <220> FEATURE:
212 <223> OTHER INFORMATION: p53, 154-162
214 <400> SEQUENCE: 16
215 Gly Thr Arg Val Arg Ala Met Ala Ile
216 1   5
218 <210> SEQ ID NO: 17
219 <211> LENGTH: 9
220 <212> TYPE: PRT
221 <213> ORGANISM: Artificial Sequence
223 <220> FEATURE:
224 <223> OTHER INFORMATION: p53, 249-257
226 <400> SEQUENCE: 17
227 Arg Pro Ile Leu Thr Ile Ile Thr Leu
228 1   5
230 <210> SEQ ID NO: 18
231 <211> LENGTH: 10
232 <212> TYPE: PRT
233 <213> ORGANISM: Artificial Sequence
235 <220> FEATURE:
236 <223> OTHER INFORMATION: p53, 299-308
238 <400> SEQUENCE: 18
239 Leu Pro Pro Gly Ser Thr Lys Arg Ala Leu
240 1   5   10
242 <210> SEQ ID NO: 19
243 <211> LENGTH: 9
244 <212> TYPE: PRT
245 <213> ORGANISM: Artificial Sequence
247 <220> FEATURE:
248 <223> OTHER INFORMATION: p53, 315-323
250 <400> SEQUENCE: 19
251 Ser Pro Gln Pro Lys Lys Lys Pro Leu
252 1   5
254 <210> SEQ ID NO: 20
255 <211> LENGTH: 10
256 <212> TYPE: PRT
257 <213> ORGANISM: Artificial Sequence
259 <220> FEATURE:
260 <223> OTHER INFORMATION: p53, 321-330
262 <400> SEQUENCE: 20

RAW SEQUENCE LISTING
PATENT APPLICATION: US/08/452,843B

DATE: 07/19/2002
TIME: 14:25:46

Input Set : A:\2060_0010002 seqlist.txt
Output Set: N:\CRF3\07192002\H452843B.raw

```
263  Lys Pro Leu Asp Gly Glu Tyr Phe Thr Leu
264  1                   5                  10
266  <210> SEQ ID NO: 21
267  <211> LENGTH: 9
268  <212> TYPE: PRT
269  <213> ORGANISM: Artificial Sequence
271  <220> FEATURE:
272  <223> OTHER INFORMATION: p53, 361-369
274  <400> SEQUENCE: 21
275  Gly Ser Arg Ala His Ser Ser His Leu
276  1                   5
278  <210> SEQ ID NO: 22
279  <211> LENGTH: 13
280  <212> TYPE: PRT
281  <213> ORGANISM: Artificial Sequence
283  <220> FEATURE:
284  <223> OTHER INFORMATION: B7-like-supermotifs
```
W--> 286 `<221> NAME/KEY: VARIANT`
```
287  <222> LOCATION: (1)...(1)
288  <223> OTHER INFORMATION: Xaa=any of the amino acids found in Table 1, as
289        well as, non-naturally occurring amino acids or
290        amino acid mimetic
```
W--> 292 `<221> VARIANT`
```
293  <222> LOCATION: (3)...(8)
294  <223> OTHER INFORMATION: Xaa=any of the amino acids found in Table 1, as
295        well as, non-naturally occurring amino acids or
296        amino acid mimetics
```
W--> 298 `<400> 22`
W--> 299 `Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Ala Val Ile Leu Met`
```
300  1                   5                  10
302  <210> SEQ ID NO: 23
303  <211> LENGTH: 14
304  <212> TYPE: PRT
305  <213> ORGANISM: Artificial Sequence
307  <220> FEATURE:
308  <223> OTHER INFORMATION: B7-like-supermotifs .
```
W--> 310 `<221> NAME/KEY: VARIANT`
```
311  <222> LOCATION: (1)...(1)
312  <223> OTHER INFORMATION: Xaa=any of the amino acids found in Table 1, as
313        well as, non-naturally occurring amino acids or
314        amino acid mimetic
```
W--> 316 `<221> VARIANT`
```
317  <222> LOCATION: (3)...(9)
318  <223> OTHER INFORMATION: Xaa=any of the amino acids found in Table 1, as
319        well as, non-naturally occurring amino acids or
320        amino acid mimetics
```
W--> 322 `<400> 23`
W--> 323 `Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ala Val Ile Leu Met`
```
324  1                   5                  10
```

7/19/02

Input Set : A:\2060_0010002 seqlist.txt
Output Set: N:\CRF3\07192002\H452843B.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:22; Xaa Pos. 1,3,4,5,6,7,8
Seq#:23; Xaa Pos. 1,3,4,5,6,7,8,9
Seq#:24; Xaa Pos. 1,3,4,5,6,7,8
Seq#:25; Xaa Pos. 1,3,4,5,6,7,8,9
Seq#:26; Xaa Pos. 1,3,4,5,6,7,8
Seq#:27; Xaa Pos. 1,3,4,5,6,7,8
Seq#:28; Xaa Pos. 1,3,4,5,6,7,8
Seq#:29; Xaa Pos. 1,3,4,5,6,7,8
Seq#:30; Xaa Pos. 1,3,4,5,6,7,8
Seq#:31; Xaa Pos. 1,3,4,5,6,7,8
Seq#:32; Xaa Pos. 1,3,4,5,6,7,8,9
Seq#:33; Xaa Pos. 1,3,4,5,6,7,8,9,10
Seq#:34; Xaa Pos. 1,3,4,5,6,7,8,9,10,11

Input Set : **A:\2060_0010002 seqlist.txt**
Output Set: **N:\CRF3\07192002\H452843B.raw**

L:286 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:292 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:22
L:298 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:22
L:299 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
L:310 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:316 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:23
L:322 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:23
L:323 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0
L:334 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:340 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:24
L:346 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:24
L:347 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24 after pos.:0
L:358 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:364 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:25
L:370 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:25
L:371 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
L:382 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:388 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:26
L:394 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:26
L:395 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26 after pos.:0
L:406 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:412 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:27
L:418 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:27
L:419 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0
L:430 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:436 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:28
L:442 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:28
L:443 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
L:454 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:460 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:29
L:466 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:29
L:467 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29 after pos.:0
L:478 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:484 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:30
L:490 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:30
L:491 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30 after pos.:0
L:502 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:508 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:31
L:514 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:31
L:518 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:31
L:519 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31 after pos.:0
L:531 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:537 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:32
L:543 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:32
L:547 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:32
L:548 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:0
L:560 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:566 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:33

7/19/02

Input Set : **A:\2060_0010002 seqlist.txt**
Output Set: **N:\CRF3\07192002\H452843B.raw**

```
L:572 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:33
L:576 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:33
L:577 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33 after pos.:0
L:589 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:595 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:34
L:601 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:34
L:605 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:34
L:606 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34 after pos.:0
```